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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,155	01/30/2002	Yu-Chuan Lin	020009	8740

23696 7590 08/10/2005

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

FILE, ERIN M

ART UNIT PAPER NUMBER

2634

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,155

Applicant(s)

LIN, YU-CHUAN

Examiner

Erin M. File

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-30 and 32-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-13, 15-17, 28-30 and 32-34 is/are allowed.
- 6) ☐ Claim(s) 1-10, 18-27 and 35-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 13, 2005 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 7, 8, 10, 18, 19, 24, 25, 27, 35 and 36 are rejected under 35 U.S.C. 102(a) as being anticipated by Chen et al.

Claims 1, 18, Chen et al discloses a noise power estimation method (paragraph [0055], paragraph [0064]) teaching despreading a received signal on an empty code channel

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(Fig. 4, step 100, 102, Fig. 6), determining a noise estimate from a resulting demodulated signal (Fig. 4, step 104, Fig. 6);

Claims 2, 19, 35, contain the limitations of Claim 1 above, Chen further discloses the use of empty Walsh code channel (paragraph [0055], line 3).

Claims 7, 8, 24, 25, inherit the limitations of Claims 1, 7, 18, and 24 respectively, further Chen discloses accumulating the determined energy of the demodulated signal over a frame (Fig. 4, step 104).

Claims 10, 27, inherit the limitations of Claims 1, 18 respectively, further Chen discloses the communication device is a CDMA base station (paragraph [0052]).

Claim 36, inherits the limitations of Claim 35, Chen further discloses a plurality of fingers, each finger adapted to demodulate a multipath replica of a desired signal and to provide outputs comprising finger noise components (Fig. 6, 36), a summer adapted to coherently sum the outputs from each of the plurality of fingers (Fig. 6, 38).

3. Claims 1, 3-6, 18, 20-23 are rejected under 35 U.S.C. 102(a) as being anticipated by Yun et al.

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Claims 1, 3, 4, 18, 20, 21, Yun discloses an apparatus and a method for measuring noise power in CDMA mobile system teaching the following claimed limitations demodulating a received signal on a Pilot Walsh code channel (Fig. 6, 510), determining a noise estimate form a resulting demodulated signal (Fig. 6, 518);

Claims 5, 22, inherit the limitations of Claims 1, 18 respectively. Yun discloses an apparatus and a method for measuring noise power in CDMA mobile system teaching the following claimed limitations determining a magnitude of the demodulated signal (Fig. 6, 516).

Claims 6, 23, inherit the limitations of Claims 5, 22 respectively. Yun further discloses accumulating the determined magnitude of the demodulated signal over a frame (Fig. 6, 518).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 9 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yun et al.

Claims 9, 26, inherit the limitations of Claims 1, 18 respectively. Yun discloses all the limitation as stated above except for the communication device is a CDMA mobile station. Nonetheless, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Because the prior art structure is capable of performing the intended use, the Yun disclosure must meet the limitation.

7. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen et al in view of Chrisikos and Han.

Claim 37, inherits the limitations of Claim 36. Chen et al discloses almost all the subject matters claimed, as stated above, except for a cross product generator and a deskew buffer adapted to store time aligned outputs. Nonetheless, using cross-product generator and deskew buffers in rake receivers are known in the art at the time of the invention (see Chrisikos, Fig. 4a, 120 and Han, Fig. 1, 114s, respectively). It would have been obvious to one of ordinary skill in the art at the time of the invention to employ (i) deskew buffers in the RAKE receiver described by Chen et al to allow the combiner to sum the outputs of the fingers coherently, and (ii) cross-product generator when frequency discrimination is required in a particular design.

Allowable Subject Matter

8. Claims 11-13, 15-17, 28-30, and 32-34 are allowed.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin M. File whose telephone number is (571)272-6040. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571)272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erin M. File



8/2/2005



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